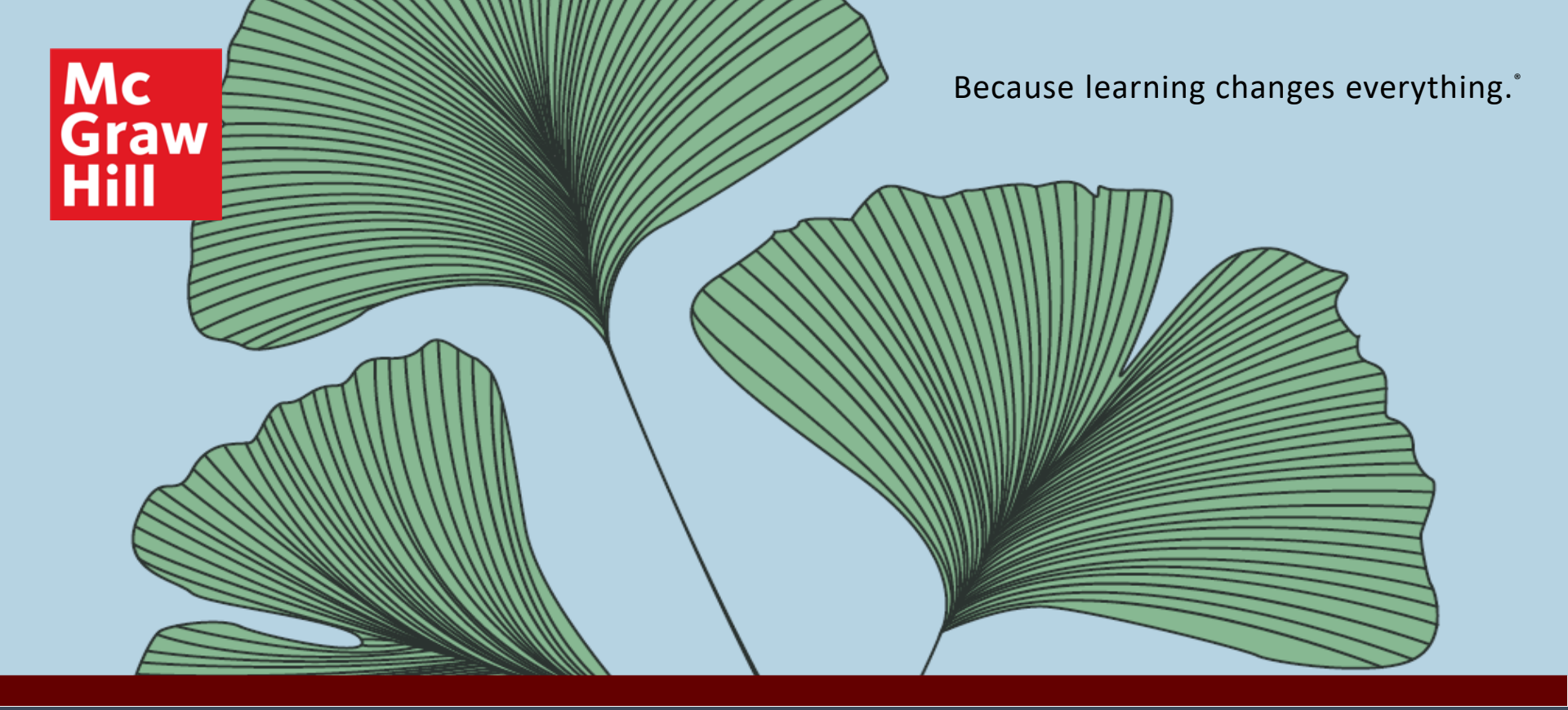

Chapter 12

International Trade and Trade Policy

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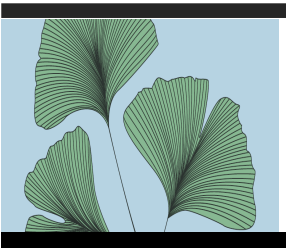

Learning Objectives

1. Explain and apply the concept of comparative advantage and explain how it differs from absolute advantage.
2. Explain how the price of a tradable good is set in a closed versus an open economy, how the quantities of imports or exports are determined, and discuss who are the winners and losers from trade.
3. Illustrate why trade is often politically controversial even though it promises to increase total income.

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Comparative Advantage as a Basis for Trade 1

- A person has an ***absolute advantage*** at a particular task if he or she can perform the task in fewer hours than the other person.
- A person has a ***comparative advantage*** at a particular task if his or her ***opportunity cost*** of performing the task is lower than the other person's opportunity cost.
- Comparative advantage doesn't just care about your skill at a task, but about your skill at that task ***compared*** to your skill at other tasks.

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Comparative Advantage and Opportunity Cost

Kelly Wearstler, a highly successful and influential interior designer, is equipped to do other design work: Should she design her own web page?

- Opportunity cost per hour: ***$500***.
- Hiring someone to complete the work: ***Less than $500 per hour***.

Do It Yourself only when.

Opportunity cost < hired cost

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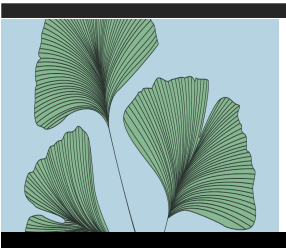

Comparative Advantage

Multiple people are faced with multiple tasks. How should they assign the work?

- Each should concentrate on the activities for which they have the lowest opportunity cost.

Total value of output increases with ***specialization and trade.***

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Comparative Advantage Example 1

Production Times	Web Update	Bike Repair
Ana	20 minutes	10 minutes
Xin	30 minutes	30 minutes

Xin and Ana can each update web pages and repair bikes.

- Ana has an absolute advantage in both.
  - Comparative advantage drives specialization.
  - Who has a comparative advantage in what?

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Comparative Advantage Example 2

Production Times	Web Update	Bike Repair
Ana	20 minutes	10 minutes
Xin	30 minutes	30 minutes

Opportunity Cost	Web Update	Bike Repair
Ana	2 repairs	0.5 update
Xin	1 repair	1 update

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Comparative Advantage Example 3

Production Times	Web Update	Bike Repair
Ana	20 minutes	10 minutes
Xin	30 minutes	30 minutes

Hourly Output	Web Update	Bike Repair
Ana	3 updates	6 repairs
Xin	2 updates	2 repairs

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Comparative Advantage Example 4

Hourly Output	Web Update	Bike Repair
Ana	3 updates	6 repairs
Xin	2 updates	2 repairs

16 web updates are ordered.

- Ana spends half her time at each activity: 12 updates and 24 repairs.
- Xin produces 4 updates and 12 repairs.
- Total output 16 updates and 36 repairs.

Specialization produces 16 updates and 48 repairs.

- 12 more repairs for the same inputs!

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Another Example

Hourly Output	Web Update	Bike Repair
Monique	2 updates	1 repair
Miguel	3 updates	3 repairs

This table shows output per hour.

- Apply the Principle of Comparative Advantage.
  - Look at opportunity cost per unit.
  - Monique repairs bikes and Miguel updates web pages.

Opportunity Cost	Web Update	Bike Repair
Monique	½ repair	2 updates
Miguel	1 repair	1 update

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Comparative Advantage as a Basis for Trade 2

Closed Economy.

- An economy that does not trade with the rest of the world.

Open Economy.

- An economy that trades with other countries.

World price.

- The price at which a good or service is traded on international markets.

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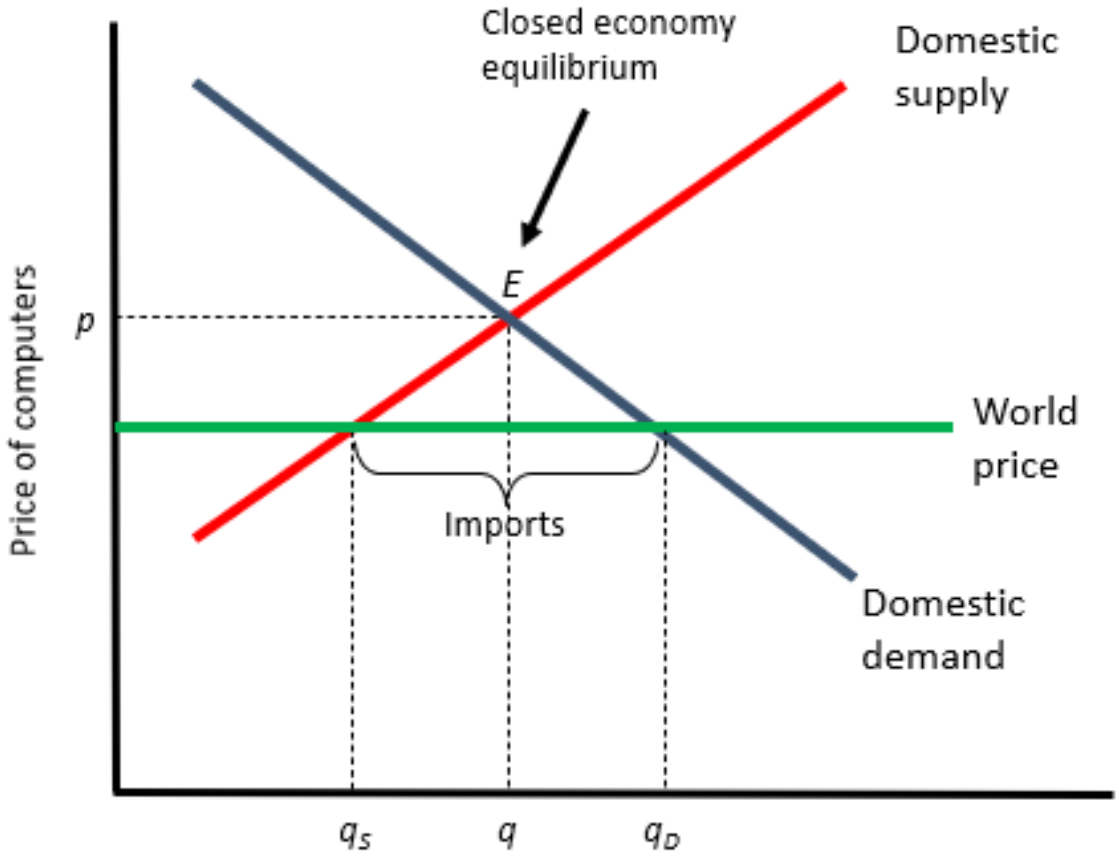
The Market for Computers in Costa Rica



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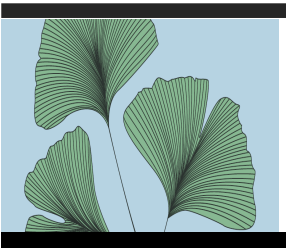

A Supply and Demand Perspective on Trade 1

- If the **price** of a good or service in a closed economy is **greater than the world price**, and that **economy opens itself to trade**, the economy will tend to become a **net importer of that good or service.**

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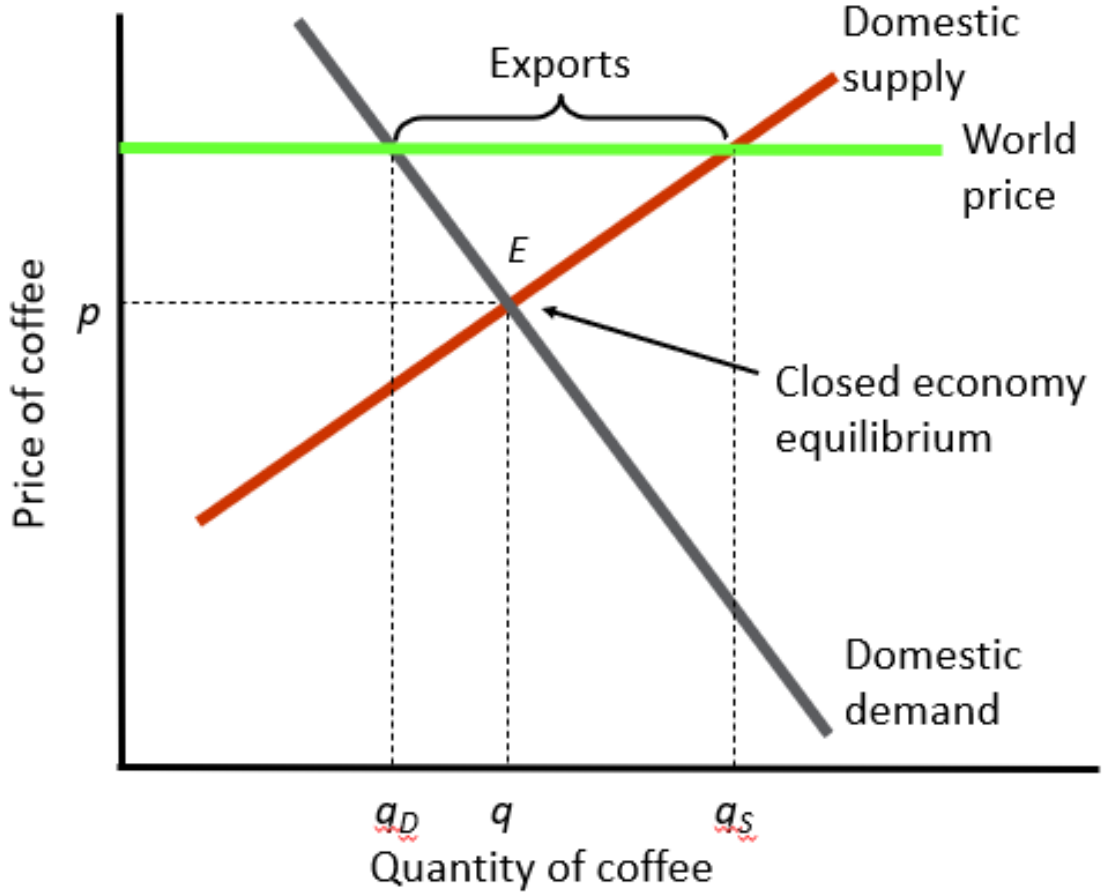
The Market for Coffee in Costa Rica



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A Supply and Demand Perspective on Trade 2

- If the **price** of a good or service in a closed economy is **lower than the world price**, and that **economy opens itself for trade**, the economy will tend to become a **net exporter of that good or service**.

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A Supply and Demand Perspective on Trade 3

Observations of the Mutually Beneficial Gains from Trade.

- Countries will profit by exporting the goods and services for which they have a comparative advantage.
- The revenue from the exports are used to import goods and services for which they do not have a comparative advantage.

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A Supply and Demand Perspective on Trade 4

Observations of the Mutually Beneficial Gains from Trade.

- The markets will ensure that goods will be produced where opportunity cost is lowest.
- The consumption possibilities will be maximized.

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Winners and Losers from Trade

Winners.

- Consumers of imported goods.
- Producers of exported goods.
- Workers in exported-good sectors.

Losers.

- Consumers of exported goods.
- Producers of imported goods.
- Workers in imported-good sectors.

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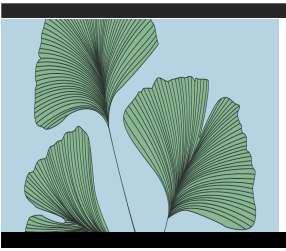

Protectionist Policies: Tariffs and Quotas 1

Protectionism.

- The view that free trade is injurious and should be restricted.

Tariff.

- A tax imposed on an imported good.

Quota.

- A legal limit on the quantity of a good that may be imported.

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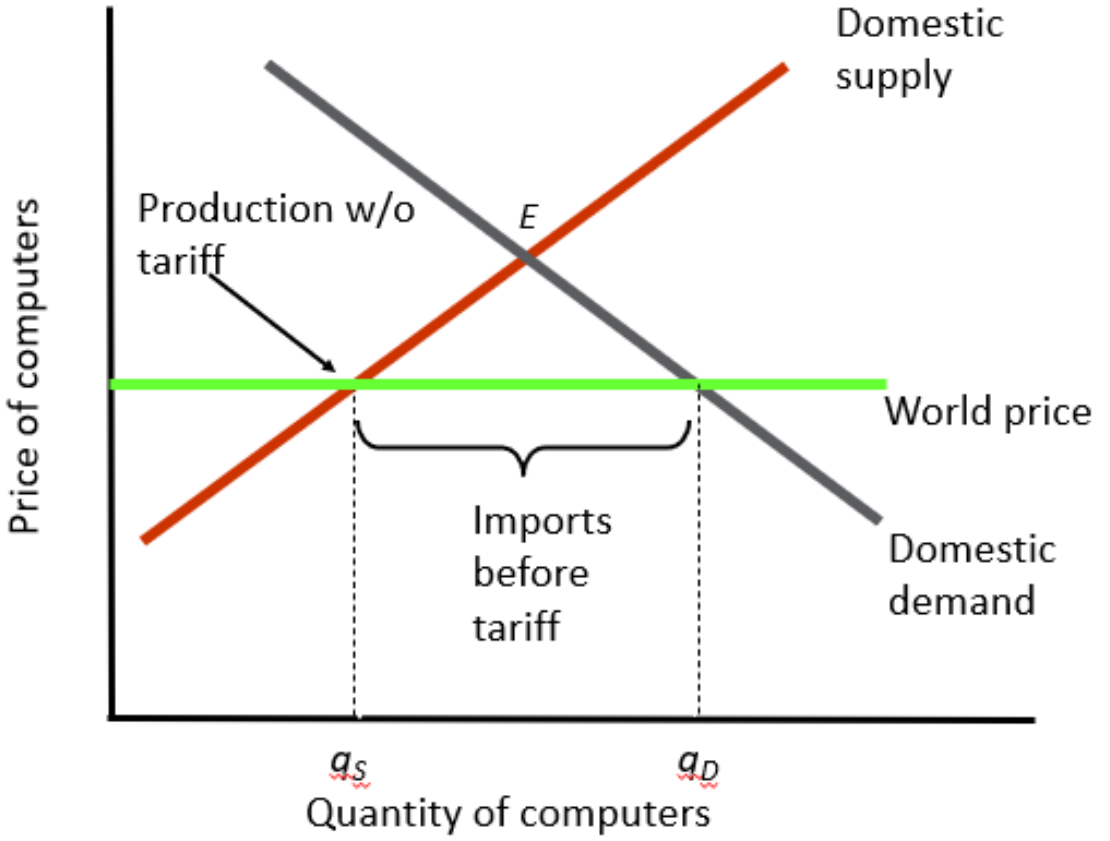
The Market for Computers after the Imposition of an Import Tariff 1



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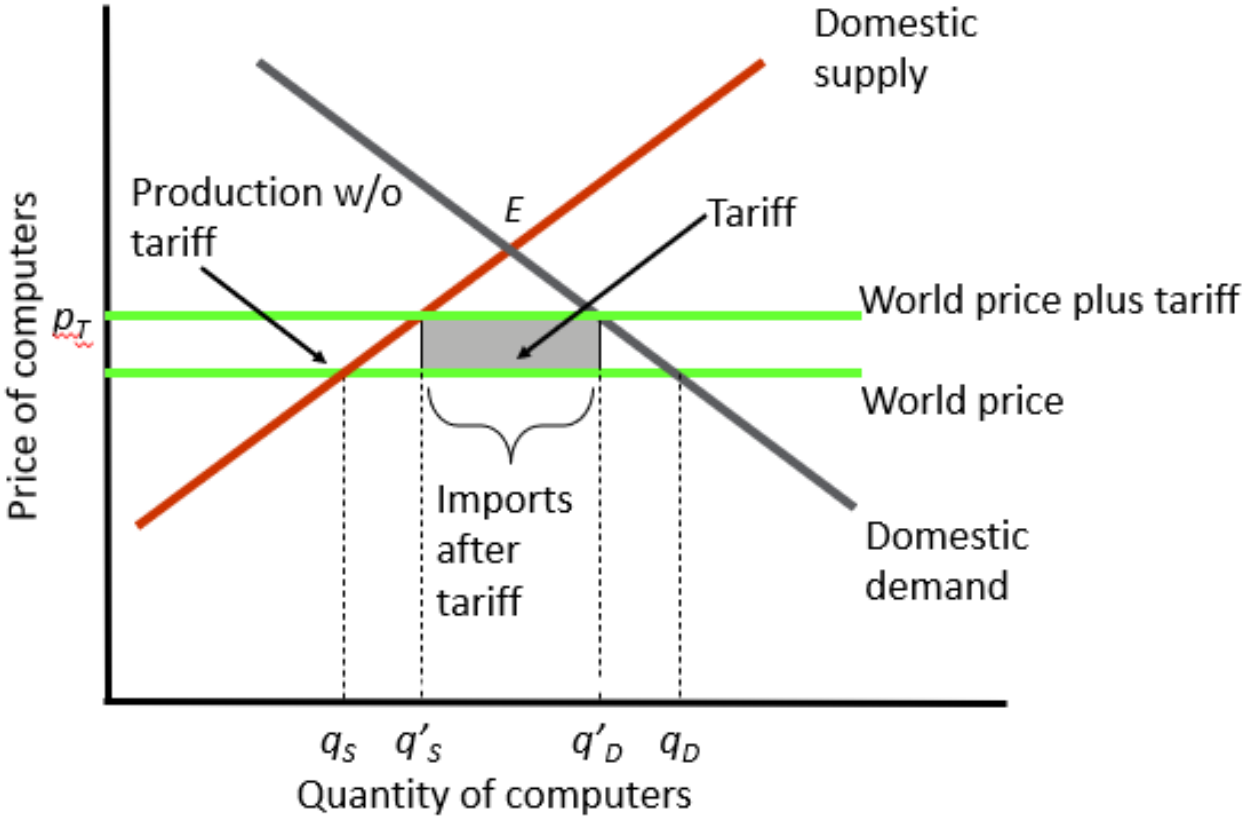
The Market for Computers after the Imposition of an Import Tariff 2



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Tariffs 1

- The market for computers in Costa Rica:

$$\text{Demand} = Q^D = 3{,}000 - 0.5P_C$$

$$\text{Supply} = Q^S = 1{,}000 + 0.5P_C$$

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Tariffs 2

Closed economy.

Equilibrium price:

- $1{,}000 + 0.5P_C = 3{,}000 - 0.5P_C$.
- $P_C = \$2{,}000$.

Equilibrium quantity:

- 1,000 + 0.5(2,000) = 2,000 computers.

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Tariffs 3

- Open economy.

P = world price = \$1,400

$q_S = 1{,}000 + 0.5(1{,}400) = 1{,}700$

$q_D = 3{,}000 - 0.5(1{,}400) = 2{,}300$

Imports = 2,300 − 1,700 = 600 computers/yr.

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Tariffs 4

- Tariff imposed.

  Tariff = $400/computer

  P = world price + tariff = $1,400 + $400 = $1,800

  q_s = 1,000 + (0.5)(1,800) = 1,900 computers/yr.

  q_d = 3,000 = (0.5)(1,800) = 2,100

  Imports = 2,100 – 1,900 = 200

  Tariff revenue = $400/computer × 200 computers/yr = $80,000/yr.

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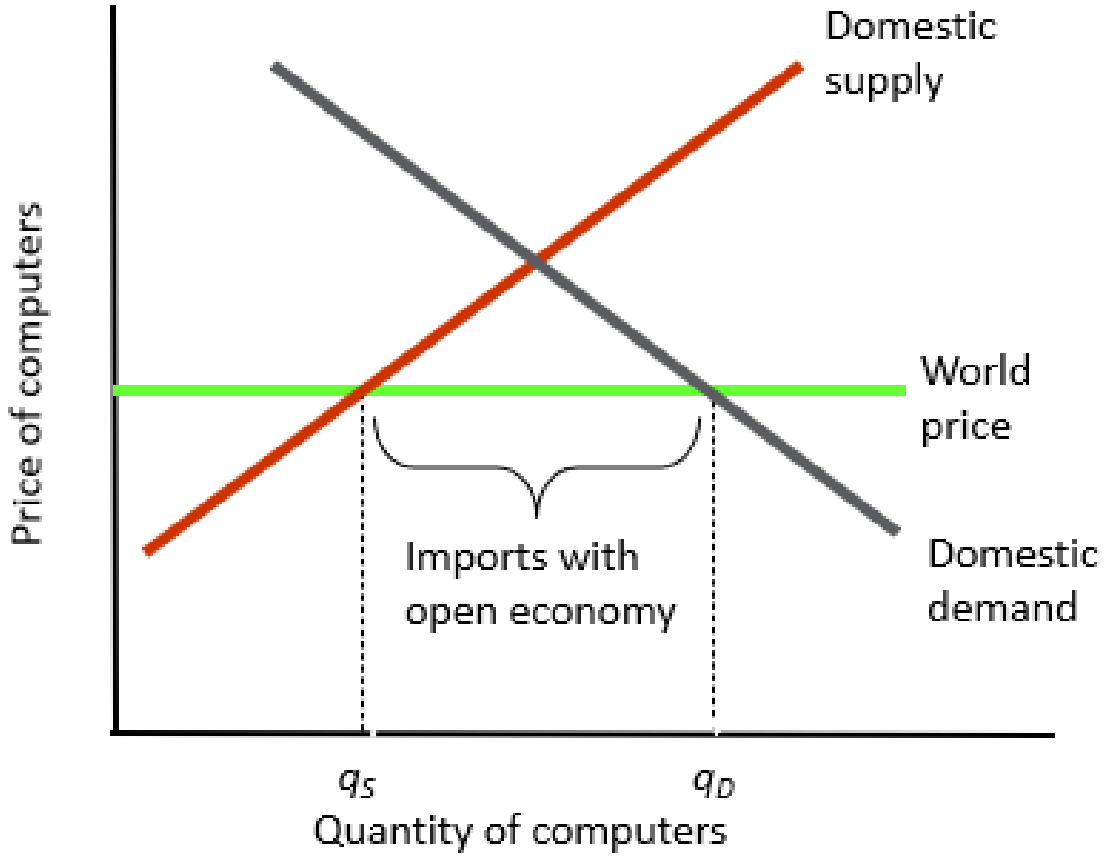
The Market for Computers after the Imposition of an Import Quota 1



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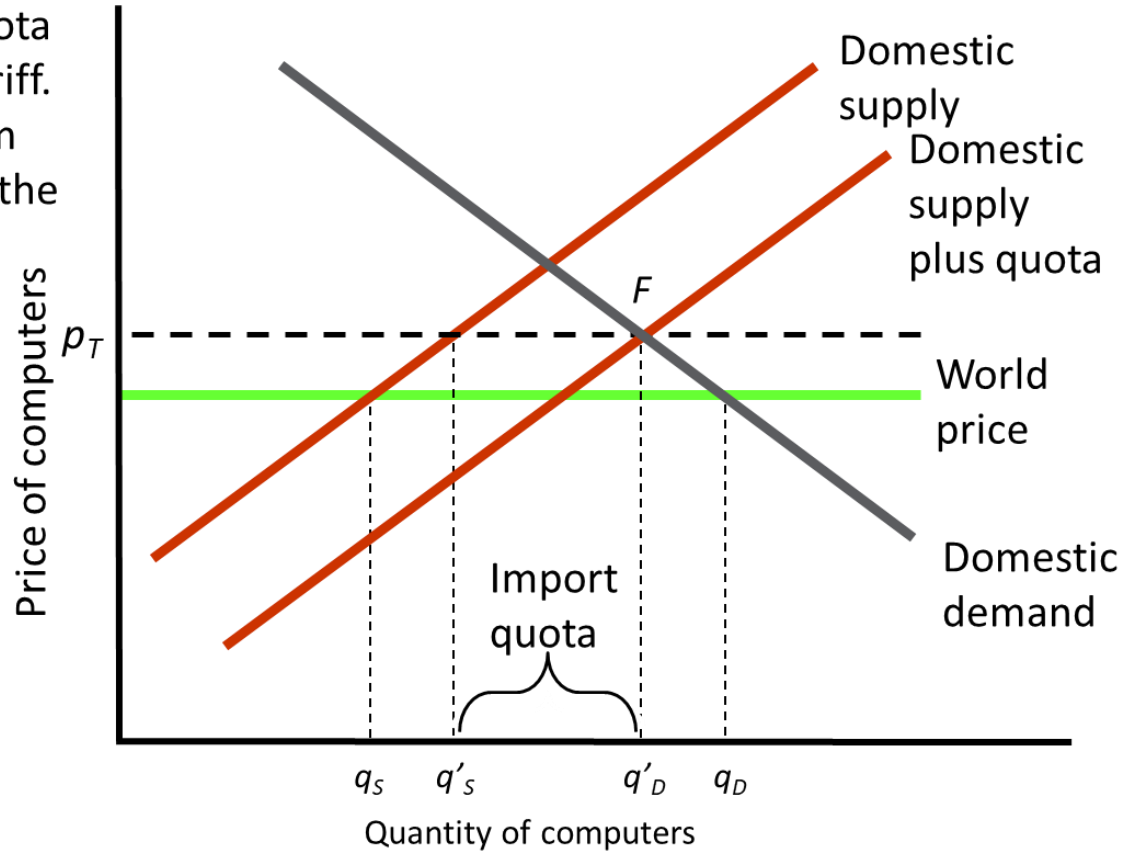
The Market for Computers after the Imposition of an Import Quota 2

- Impact of quota = impact of tariff.
- Revenue from quota goes to the producer.



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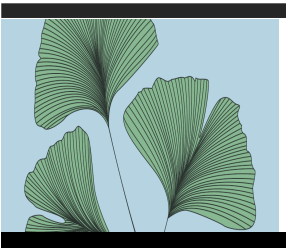

Protectionist Policies: Tariffs and Quotas 2

Quotas & Tariffs.

- Market effects of tariffs are the same.
- Tariffs generate tax revenue.
- Quotas generate revenue for the firms that hold an import license.

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Quotas 1

Effects of an import Quota.

- **Without quota:**
  - $q_S = 1{,}000 + 0.5P_C$.
- **With a quota of 200 computers.**
  - $q_S = 1{,}000 + 0.5P_C + 200 = 1{,}200 + 0.5P_C$.
  - $q_D = 3{,}000 - 0.5P_C$.
  - Equilibrium = $1{,}200 + 0.5P_C = 3{,}000 - 0.5\ P_C$.
  - Equilibrium price = $1,800.

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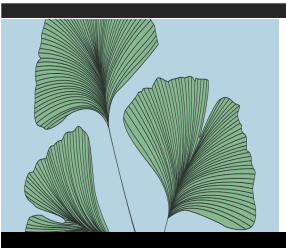

Quotas 2

Effects of an import Quota.

- With a quota of 200 computers.
  - Domestic quantity supplied.
    - 1,000 + 0.5($1,800) = 1,900 computers/yr.
  - Domestic quantity demanded.
    - 3,000 – 0.5 ($1,800) = 2,100 computers/yr.
  - Imports = 2,100 – 1,900 = 200.
  - Revenue to the importers.
    - ($1,800 – $1,500) × 200 = $60,000.

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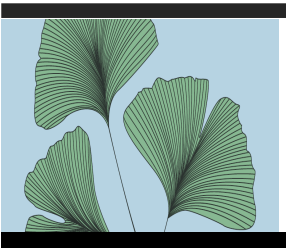

Protectionist Policies

Other Barriers to Trade.

- Red-tape barriers.
- Regulations.

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The Inefficiency of Protectionism

- Trade barriers are inefficient and reduce the size of the economic pie.
- Because trade barriers benefit certain groups, and these groups may be well organized, they may be successful in lobbying for trade barriers.
- The gains from trade could be used to assist groups that have been hurt by trade.

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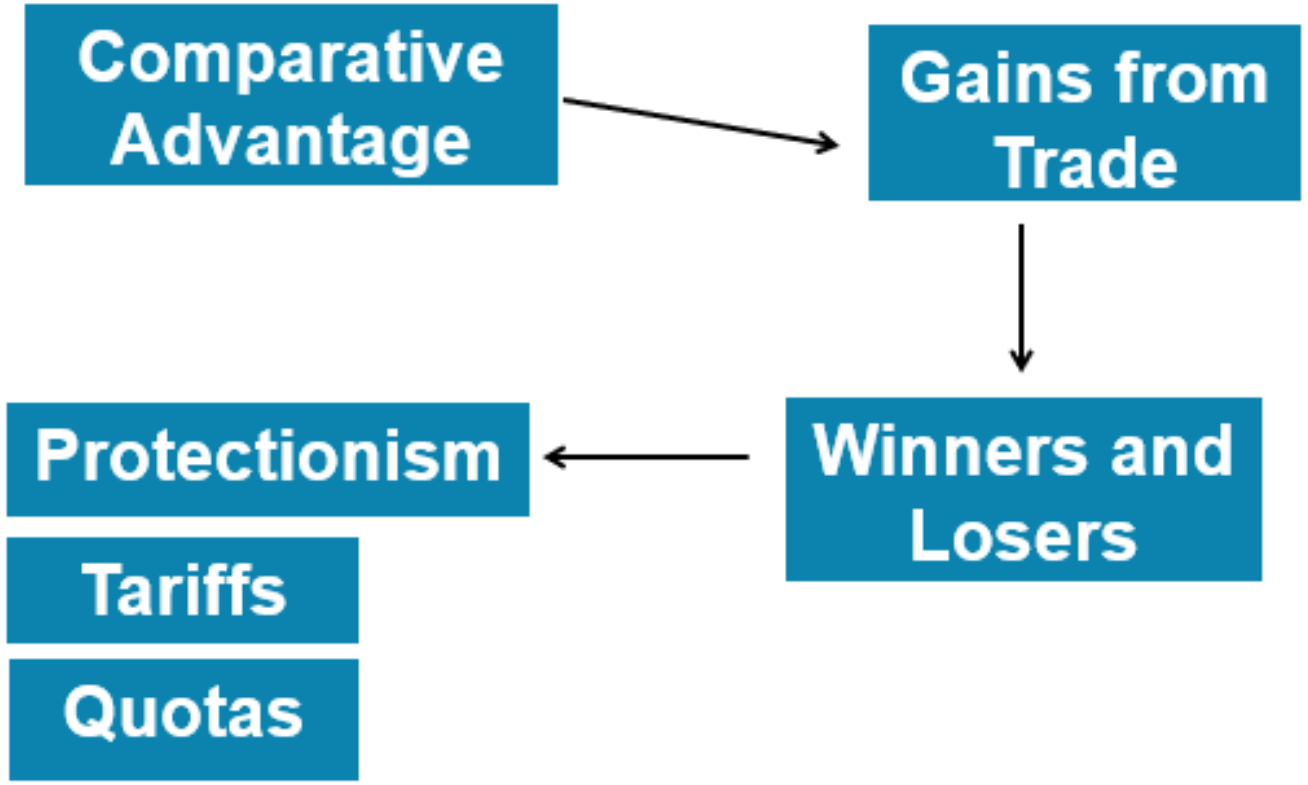
International Trade and Trade Policy



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